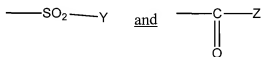


## AMENDMENTS TO THE CLAIMS

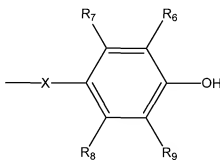
Z is selected from the group consisting of alkyl having 1 to 8 carbons, alkenyl having 2 to 8 carbons, alkoxy having 1 to 6 carbons, hydroxyl, substituted amino, substituted cycloalkyl, substituted phenyl or substituted aralkyl;

R<sub>2</sub> and R<sub>4</sub> are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, or hydroxyl, or

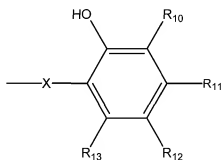


wherein Y and Z are as defined above, when R<sub>1</sub>, R<sub>3</sub> or R<sub>5</sub> is alkoxy having 1 to 4 carbons or hydroxyl;

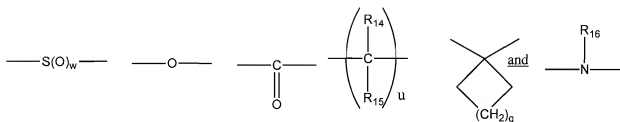
R<sub>3</sub> is selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, Formula (II) or Formula (III)



(II)

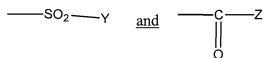


wherein X is selected from the group consisting of



wherein w is 0, 1 or 2; u is 0 or 1; q is 0 to 4; R<sub>14</sub> and R<sub>15</sub> are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, optionally substituted phenyl or optionally substituted aralkyl; R<sub>16</sub> is selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, substituted phenyl or substituted aralkyl;

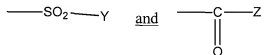
R<sub>6</sub>, R<sub>9</sub> and R<sub>10</sub> are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, or



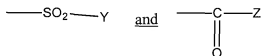
wherein Y and Z are defined as above;

R<sub>7</sub>, R<sub>8</sub>, R<sub>11</sub> and R<sub>13</sub> are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or hydroxyl, but R<sub>11</sub> is selected from the group consisting of hydrogen, halogen,

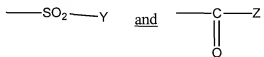
alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or



wherein Y and Z are as defined above when R<sub>12</sub> is alkoxy having 1 to 4 carbons or hydroxyl; R<sub>12</sub> is selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or selected from the group consisting of

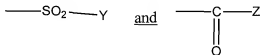


wherein Y and Z are as defined above, or selected from the group consisting of

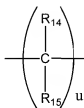


wherein Y and Z are as defined above, provided that

when R<sub>3</sub> is of Formula (II), one of R<sub>1</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>9</sub> is selected from the group consisting of

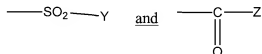


wherein Y and Z are as defined above, in which, when X is

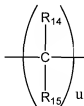


at least one of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> is —SO<sub>2</sub>—Y, and

when R<sub>3</sub> is of Formula (III), at least one of R<sub>1</sub>, R<sub>5</sub>, and R<sub>10</sub> is selected from the group consisting of



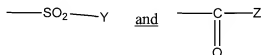
in which, when X is



at least one of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> is —SO<sub>2</sub>—Y ,

wherein Y and Z are as defined above, and

when R<sub>3</sub> is selected from a group other than the group consisting of Formula (II) or (III), either of R<sub>1</sub> or R<sub>5</sub> is selected from the group consisting of



wherein Y and Z are as defined above, and

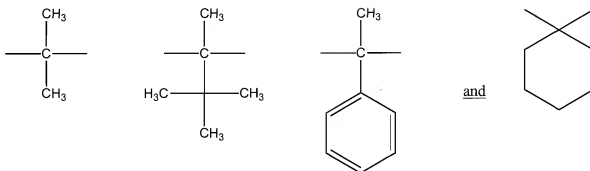
the phenol derivative is reacted with an organic compound under conditions sufficient to ~~from~~ form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

2. (Currently Amended) A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (IV)



wherein A is selected from the group consisting of

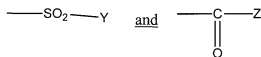




wherein w is 0, 1 or 2 and u is 0 or 1;

R<sub>18</sub>, R<sub>19</sub>, R<sub>21</sub> and R<sub>24</sub> are same or different selected from the group consisting of  
 hydrogen, halogen, alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons;

R<sub>17</sub> is selected from the group consisting of



wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

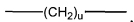
benzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

a  $\alpha$ -methylbenzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or

naphthyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and

$R_{20}$ ,  $R_{22}$ , and  $R_{23}$  are same or different hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or the same groups as those for  $R_{17}$ , when A is

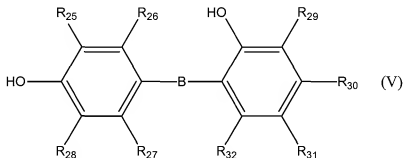


at least one of  $R_{17}$ ,  $R_{20}$ ,  $R_{22}$  and  $R_{23}$  is  $\text{---SO}_2\text{---Y}$  wherein Y is defined as above, and

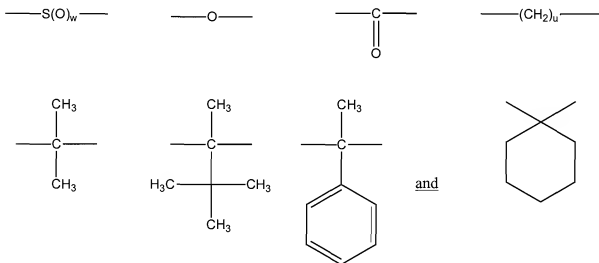
an organic compound, as the other reactant under conditions sufficient to ~~from~~ form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.



3. (Currently Amended) A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (V)



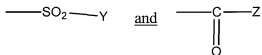
wherein B is a group selected from



wherein w is 0, 1 or 2 and u is 0 or 1;

$R_{26}$ ,  $R_{27}$ ,  $R_{30}$  and  $R_{32}$  are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons;

R<sub>25</sub>, R<sub>28</sub>, R<sub>29</sub>[[,]] and R<sub>31</sub> are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or



wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

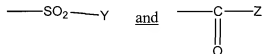
phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

a  $\alpha$ -methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or

naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and at least one of R<sub>25</sub>, R<sub>28</sub> and R<sub>29</sub> is selected from the group consisting of



wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

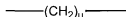
phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

a α-methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or

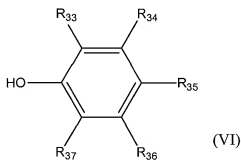
naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,  
when B is



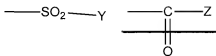
at least one of  $\text{R}_{25}$ ,  $\text{R}_{28}$ ,  $\text{R}_{29}$  and  $\text{R}_{31}$  is  $\text{---SO}_2\text{---Y}$  wherein Y is defined as above, and

an organic compound as the second reactant under conditions sufficient to ~~from~~ form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

4. (Currently Amended) A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (VI)



wherein  $\text{R}_{33}$  is ~~selected from the group consisting of~~



wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

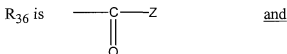
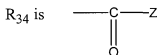
benzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

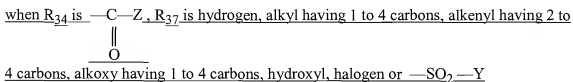
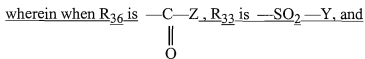
a  $\alpha$ -methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or

naphthyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and

~~R<sub>34</sub>, R<sub>35</sub>, R<sub>36</sub> and R<sub>37</sub> are the same or different~~ is selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, halogen or the same groups as those for R<sub>33</sub>,



R<sub>37</sub> is hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl



with an organic compound as the second reactant under conditions sufficient to ~~form~~  
form the molecular compound selected from the group consisting of hydrates, solvates, adducts,  
 and clathrate compounds having the phenol derivative as a constituent, the constituent being a  
 host.

5-11. (Cancelled)

12. (Currently Amended) A molecular compound according to Claim 1, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (I), (IV), (V), and (VI); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

13. (Currently Amended) A molecular compound according to Claim 2, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (I), (IV), (V), and (VI); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating





noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

16. (Currently Amended) A molecular compound according to Claim 1, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (I); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

17. (Currently Amended) A molecular compound according to Claim 2, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (IV); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating

materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

18. (Currently Amended) A molecular compound according to Claim 3, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (V); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

19. (Currently Amended) A molecular compound according to Claim 4, in which the molecular compound contains, as constituents:

a phenol derivative selected from the group consisting of Formula (VI); and

a material that reacts with the phenol derivative to form a molecular compound selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating

materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

20-27. (Cancelled)

28. (Currently Amended) The molecular compound according to the method of ~~claim~~ Claim 1, wherein the organic compound is selected from the group comprising:

antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents and accelerators for coating materials, resins and adhesives, natural essential oils, antioxidants, vulcanization accelerators or organic solvents, that react with the said phenol derivative to form the molecular compound.

29. (Currently Amended) The molecular compound according to the method of ~~claim~~ Claim 2, wherein the organic compound is selected from the group comprising:

antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents and accelerators for coating materials, resins and adhesives, natural essential oils, antioxidants, vulcanization accelerators or organic solvents, that react with the said phenol derivative to form the molecular compound.

30. (Currently Amended) The molecular compound according to the method of ~~claim~~ Claim 3, wherein the organic compound is selected from the group comprising:

antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents and accelerators for coating materials, resins and adhesives, natural essential oils, antioxidants, vulcanization accelerators or organic solvents, that react with the said phenol derivative to form the molecular compound.

31. (Currently Amended) The molecular compound according to the method of ~~claim~~ Claim 4, wherein the organic compound is selected from the group comprising:

antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents and accelerators for coating materials, resins and adhesives, natural essential oils, antioxidants, vulcanization accelerators or organic solvents, that react with the said phenol derivative to form the molecular compound.